

REMARKS

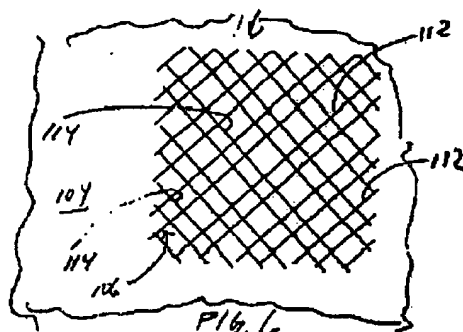
Claims 4-17 are pending in the present application. Claims 1-3 were previously cancelled. No amendments are made herein. In view of the remarks, Applicant respectfully requests allowance of the pending claims.

Claims 4-17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi (U.S. Patent No. 6,411,386). Applicant respectfully traverses this rejection.

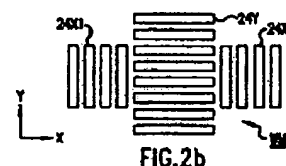
Claim 4 specifically recites an "[a]pparatus for detecting an alignment mark on a semiconductor body, such alignment mark comprising a pair of sets of parallel lines . . . being in an overlaying relationship." Nishi, on the other hand, does not teach parallel lines in an overlaying relationship. The present application clearly describes the difference between a pair of spatially separated sets of parallel lines (as shown in Applicant's admitted prior art Figure 2; see also page 3, lines 8-12) and a set of parallel lines being in an overlaying relationship (as shown in Figs. 6 and 7; see also page 5, lines 24-29). In Figure 2, Nishi clearly teaches spatially separated sets of parallel lines.



Present Application
Figure 2 (Prior Art)
spatially separated lines



Present Application
Figure 6
lines in an overlaying relationship



Nishi
Figure 2b
spatially separated lines

In addition, claim 4 specifically recites "an optical system for scanning an alignment illumination comprising a pair of orthogonal lines of impinging light over the surface of the alignment mark, one of such pair of impinging light lines being orthogonal to, and laterally displaced from, the other one of such pair of impinging light lines." The claim also requires "a

pair of laterally spaced detectors, each one of the detectors being positioned to detect a corresponding one of the laterally displaced beams of reflected light." It is respectfully submitted that the reference by Nishi does not teach or suggest the limitations of claim 4.

Applicant can find no teaching in Nishi of an impinging light line that is orthogonal to and laterally spaced from another impinging light beam. The Examiner has pointed to Figures 1 and 6, as well as some text sections. Review of these portions of the prior art reference does not provide any teaching, much less suggestion, of the limitations of the prior art.

Further, the Examiner admits that Nishi does not disclose a pair of laterally spaced detectors. Applicant respectfully submits that it would not be obvious to include such a feature. Such a feature is unnecessary since Nishi does not teach "impinging light being reflected by the alignment lines in the surface of the semiconductor when such impinging light is over to provide a pair of laterally displaced beams of reflected light." In fact, these features are unnecessary since Nishi has spatially separated alignment marks.

Therefore, it is respectfully submitted that claim 4 is allowable over the references of record.

Claims 5-17 depend from claim 4 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding further limitations.

Claim 4 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,537,836 ("the '836 patent). Applicant respectfully submits that the double-patenting requirement is improper.


The '836 patent and the present application are both divisional applications claiming priority to U.S. Application Serial No. 09/362,976. The original '976 application was filed with four claims. The Office required a three-way restriction: Group I (claims 1-2) were prosecuted in the '976 application; Group II (claim 3) was prosecuted in the '836 patent; and Group III (claim 4) is the claim at issue here. U.S. Patent Application Serial No. 09/362,976, Office Action dated September 12, 2000.

The third sentence of 35 U.S.C. 121 prohibits the use of a patent issuing on an application with respect to which a requirement for restriction has been made, or on an application filed as a result of such a requirement, as a reference against any divisional application, if the divisional application is filed before the issuance of the patent. MPEP 804.1. In this case, the prohibition applies since the Office has made a requirement for restriction. For the Examiner's convenience, a copy of the restriction requirement is provided herewith.

In view of the above, Applicant respectfully submits that the application is in condition for allowance and requests that the Examiner pass the case to issuance. If the Examiner should have any questions, Applicant requests that the Examiner contact Applicant's attorney at the address below. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

4/21/04
Date


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